



King County Strategic Plan 2010-2014: *Working Together for One King County*

Environmental Sustainability: ***Safeguard and enhance King County's natural resources and environment***

Committee of the Whole Briefing

Oct. 3, 2011



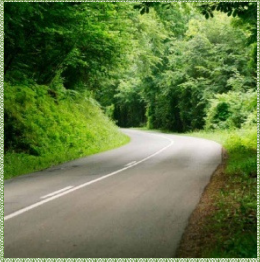
King County Strategic Plan

- Outgrowth of 2008 King County Performance Management and Accountability Act
- Creates countywide performance management and accountability system
- Four goal areas, including Environmental Sustainability
- Strategic Plan also influences *how* we do our work, with an emphasis on service excellence, financial stewardship, public engagement, quality work force.



Today's Presentation

- Overview of Environmental Sustainability objectives
- How County agencies work together
- Example projects and programs, highlighting how we meet multiple benefits, and the role of partnerships
- Transparency and reporting.



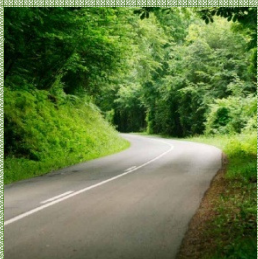
Environmental Sustainability Objectives

- Protect and restore water quality, biodiversity, open space and ecosystems
- Encourage sustainable agriculture, forestry
- Reduce climate pollution and prepare for climate change effects on the environment, human health and the economy
- Minimize King County's operational footprint.



Approach

- Look for opportunities to achieve multiple benefits
- Use partnerships to leverage resources
- Organize work around environmental objectives rather than departments
- Measure results and use to inform future priorities and investments.



Coordination Across Agencies

Environmental
Sustainability Goal
Team

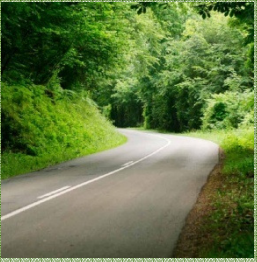
- Goal Team includes Department and Division leadership to prioritize resources, remove implementation barriers

Energy Task
Force

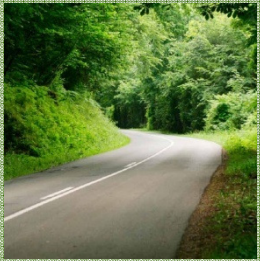
Climate
Team

Green
Building
Team

- Topical teams share technical information and successful implementation strategies, and pursue joint projects

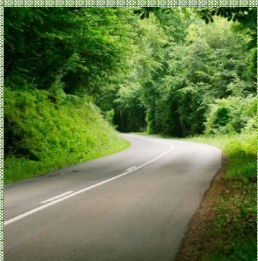


PROTECT AND RESTORE WATER QUALITY, BIODIVERSITY, OPEN SPACE AND ECOSYSTEMS



Water Quality: Lower Duwamish clean-up

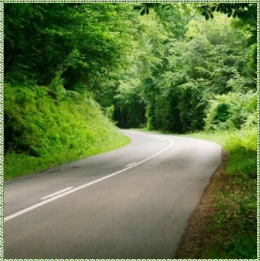
- At a crossroads with update to County's combined sewer overflow plan and pending EPA recommendation on Superfund clean-up
- Want to link projects, investments for maximum benefit and ensure that clean-up not “undone” by new pollution
- Use clean-up investments to spur economic development.



Water Quality: Stormwater Management Program

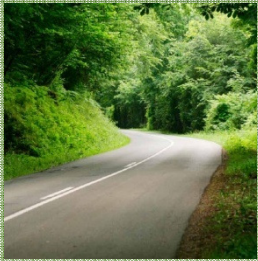
- Water quality, flooding and habitat improvement capital projects
- Growing focus on Low Impact Development
- Drainage Complaint Response Program - 1,000 customer calls/yr.
- Technical support to businesses, landowners and farmers to protect water quality
- Inspection and maintenance of stormwater system: Facilities, pipes, ditches, etc.





Open Space and Ecosystems

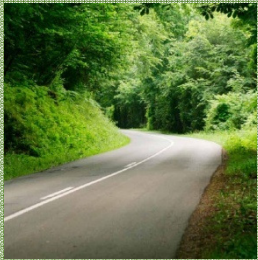
- **King County's 'Big Back Yard' offers 200 parks, 175 miles of regional trails, 180 miles of backcountry trails and 26,000 acres of open space**
- **Conservation Futures and Parks Expansion Levy are primary grant sources**
- **Also market-based tools and incentives:**
 - Transfer of development rights
 - Tax incentives (Public Benefit Rating System)
 - 'Fee-in lieu of mitigation'
- **Pursue multiple goals wherever possible**
- **Use partnerships to leverage resources and engage community.**



Multiple Benefits: Chinook Bend

- Restore habitat, natural river processes,
- Maintain public infrastructure, private property protections
- Re-use ~800 truck loads of levee material to build flood refuge farm pads
- Site includes wetland enhanced with reclaimed wastewater in partnership with Ducks Unlimited.





Partnerships: Duthie Hill Mountain Bike Park



Public-private partnership of King County and Evergreen Mountain Bike Association, combined with County grant funding and more than 6,000 hours of volunteer labor creates a world-class public amenity.

Duthie Hill Mountain Bike Park attracts mountain bike riders from across the region, making a positive economic impact to King County.



SUPPORT SUSTAINABLE FORESTRY AND AGRICULTURE



Sustainable forestry



Protect forestland from conversion

- 100,000-plus acres protected by easement, purchase
- Incentives reduce taxes on managed forests

Promote long-term stewardship of rural forests

- Forester technical assistance, stewardship plans
- Encourage management for health, productivity.



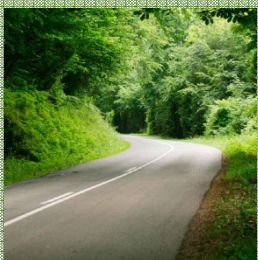
Sustainable Agriculture

- Protect farmland from conversion through purchase/transfer of development rights and tax incentives
- Promote farm success through technical and marketing assistance, and assistance with flooding issues.





REDUCE CLIMATE POLLUTION AND PREPARE FOR THE EFFECTS OF CLIMATE CHANGE

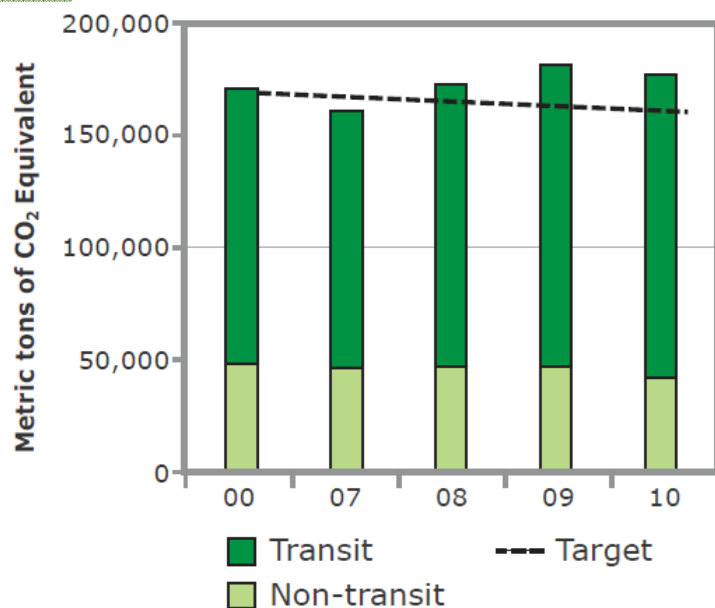


Climate Change

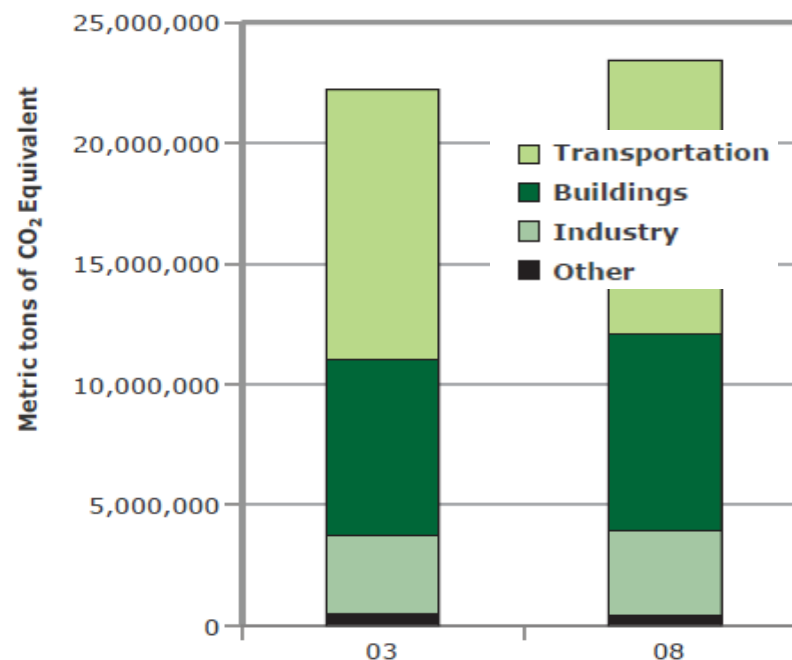
Measurement and Management

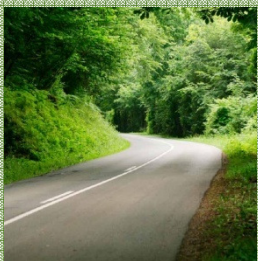
- Assessing greenhouse gas emissions from both government operations and at the community scale
- Tracking energy, green building, solid waste, recycling and environmental purchasing data.

**Government Operations
Direct Greenhouse Gas Emissions**



**Countywide, Community Scale
Greenhouse Gas Emissions**



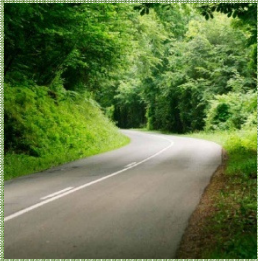


Climate Change

VanPool and VanShare

- In 2010, 1,068 vans provided 2.85 million trips, reducing 46 million private vehicle miles traveled
- New program enhancements include integrating electric vehicles into fleet, expanding program to include schools, churches, community groups.





Climate Change Regional Trails System

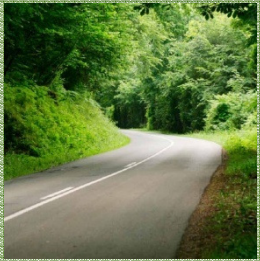
- Recent accomplishments in design, development, funding and construction of trails, including East Lake Sammamish, Burke-Gilman, Lakes-to-Sound, Issaquah-Preston trails
- October 2010 trail count survey:
 - Almost 2 million annual bike and pedestrian trips on the Sammamish River Trail in Redmond



Marymoor Park Connector Trail



Cedar River Trail



Climate Change

Waste Prevention and Recycling

- Waste prevention and recycling avoids GHG emissions from manufacturing processes
- About 1.2 million tons of recyclable/compostable materials annually, cutting GHG emissions by ~2 million MTCO₂e (~380,000 passenger vehicles)



- SWD residential educational campaign through TV, radio, print, social media and online advertising, outreach and articles
- Partnerships with businesses, i.e., Bartell Drugs
- Outreach in cities with low recycling rates

Climate Change Planning and Preparedness

Project examples:

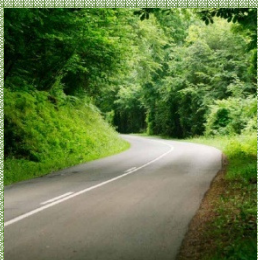
- Wastewater treatment infrastructure
- Reclaimed water
- Soil and forest restoration
- Flood risk mitigation



Climate Change and King County rivers

- WLRD study of 10 sites in King County:
- Shows increased river flows in February and March over the 50-year period
- Shows strong and significant decreases in flow in August, September and October
- Trends consistent with projected climate change impacts.





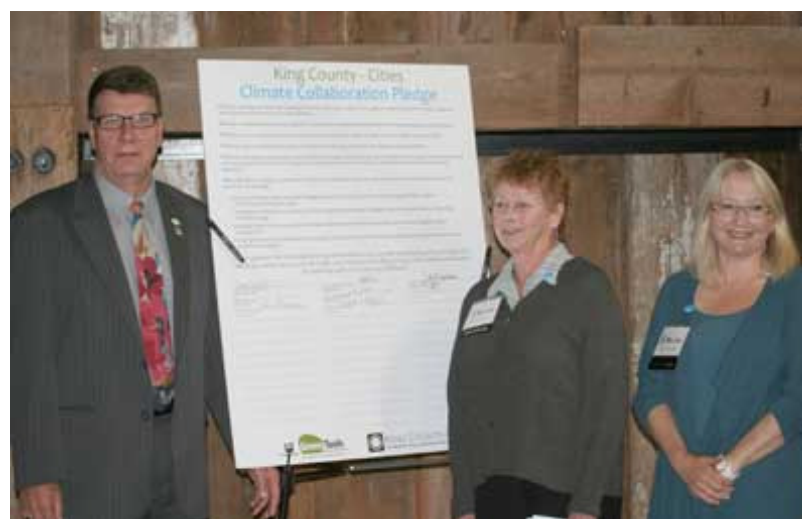
Climate Change Collaboration

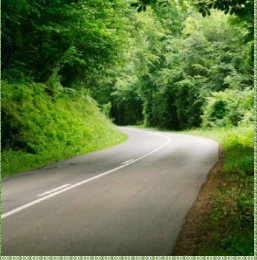
Partnership to enhance the effectiveness of King County government climate and sustainability efforts

- 9 cities since June 2011 kickoff
- Cities commit funding and staff

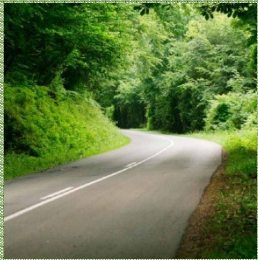
Four focus areas:

- Outreach
- Coordination
- Solutions
- Funding and resources





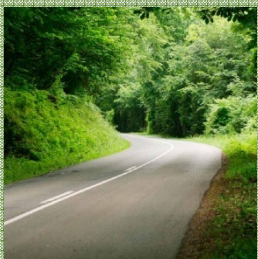
REDUCE THE COUNTY'S ENVIRONMENTAL FOOTPRINT



King County's Energy Program

**The King County Energy Plan
was adopted in October 2010**

- Plan performance key indicators:
 - Ten percent net reduction in energy use in County buildings and facilities by 2012.
 - Ten percent net reduction in energy use by County vehicles by 2015.
 - Produce, use or procure renewable energy equal to 50 percent of total County energy requirements by 2012.

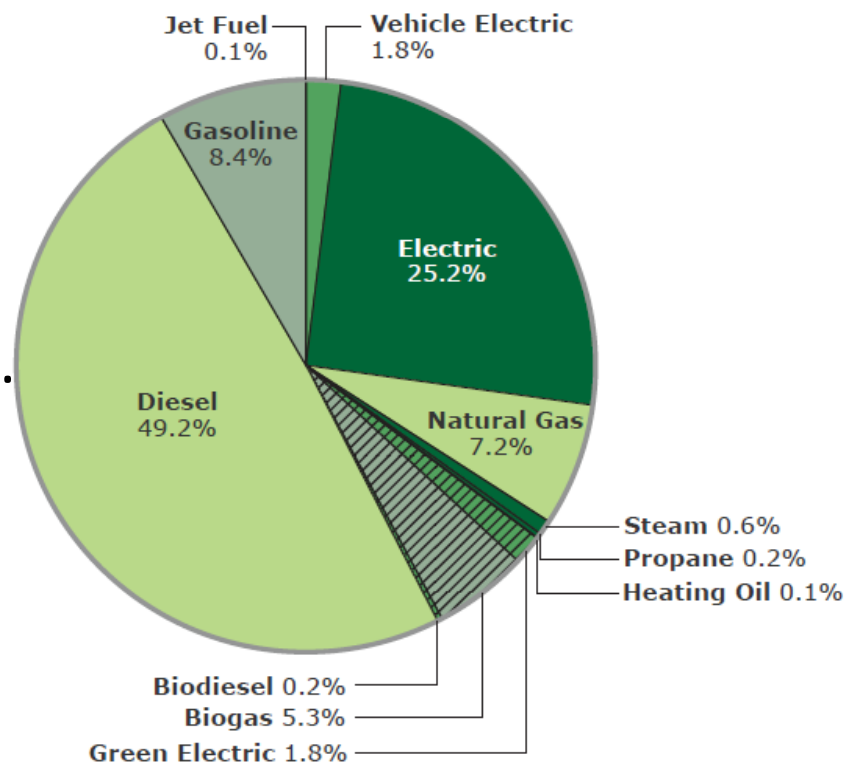


Energy Environment in King County

**A wide variety of energy types
and applications across the County**

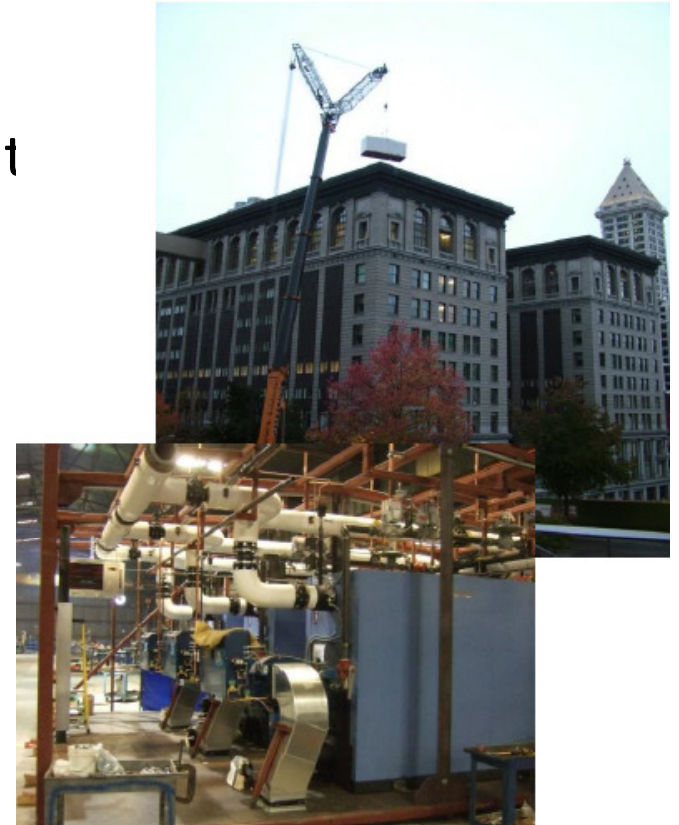
- Predominant energy uses are diesel fuel for transit vehicles and electricity for wastewater processing.
- Overall, County government used 3.5 trillion BTUs in 2010.

**King County Government Operations
Energy Resource Mix, 2010**

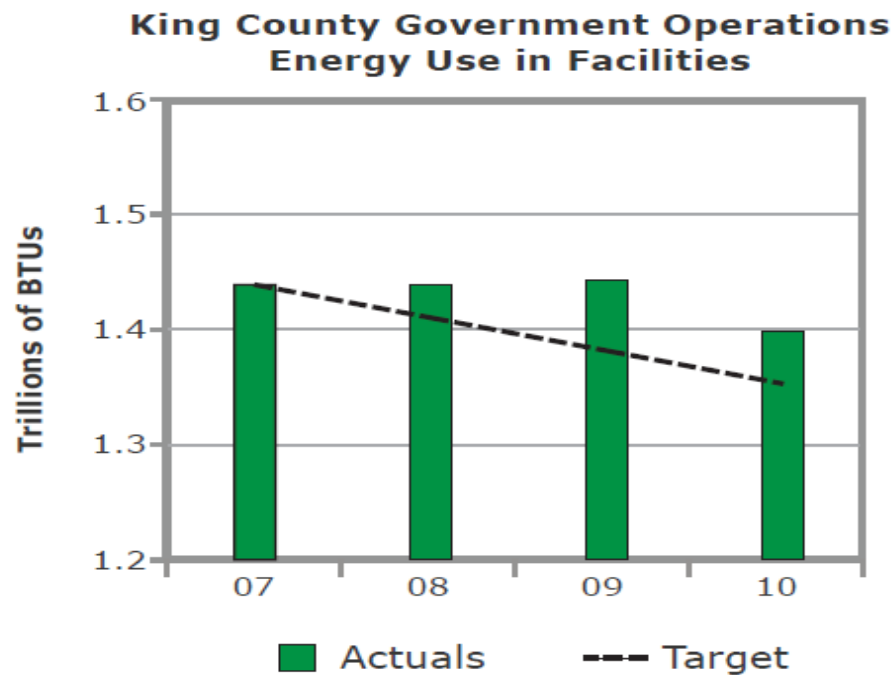


Key Accomplishments in Energy

- FMD energy-efficiency actions cut energy use more than 7 percent from 2007.
- Low-cost federal energy conservation bonds, an ARRA grant, utility rebates offset County energy project costs.
- SWD's Cedar Hills Regional Landfill gas sale included environmental rights, qualifying the resource as renewable energy; will greatly increase revenue.



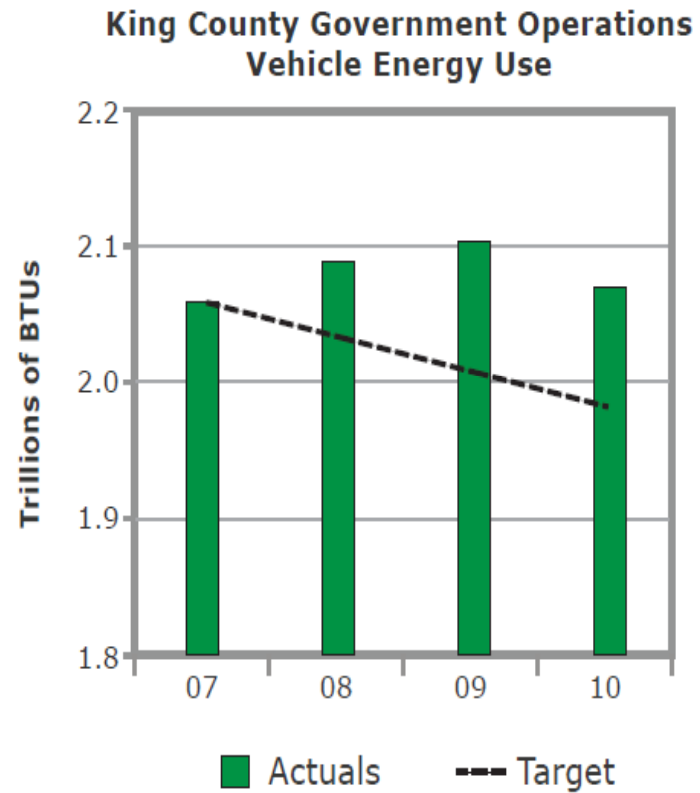
Performance to Plan: Facility Energy



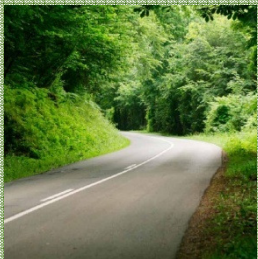
Facility energy use has declined – 2010 3 percent below the 2007 baseline year.



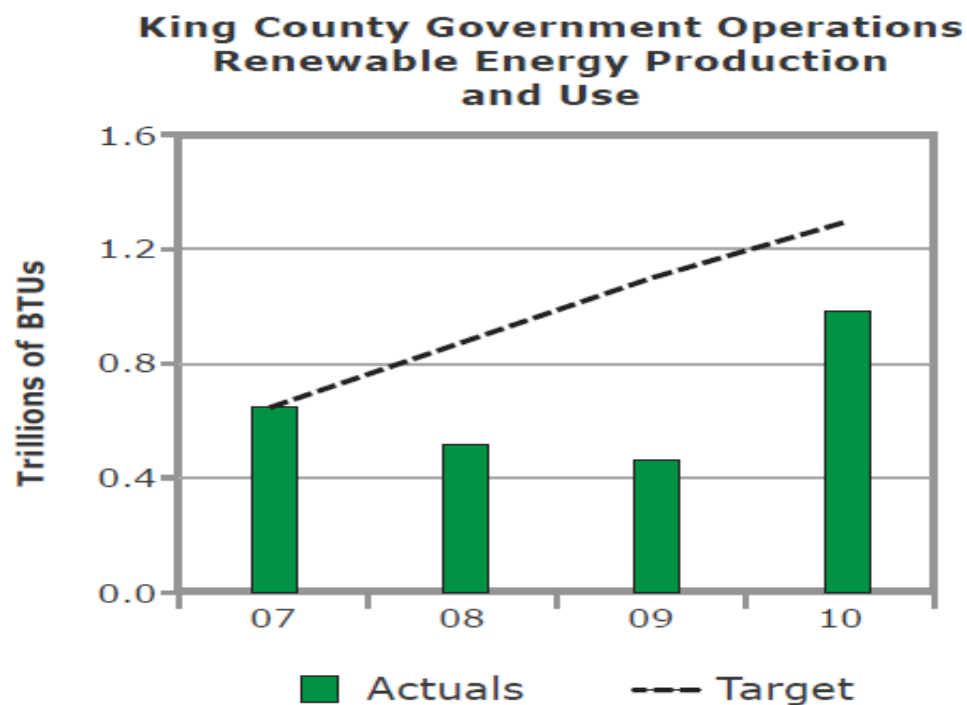
Performance: Vehicle Energy



Vehicle energy use has declined since 2009 after a rise
- 2010 was 1 percent above 2007.



Performance: Renewable Energy

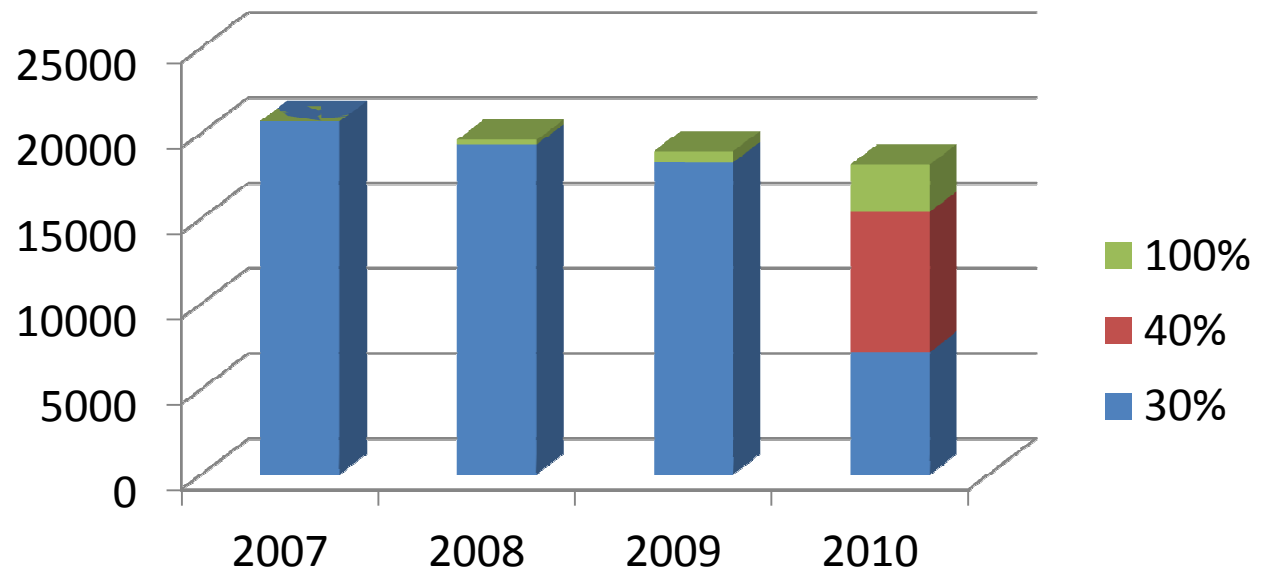


Renewable energy production increased dramatically with Cedar Hills gas plant startup. Expect to achieve 2012 target.



Paper Purchasing

- 2012 goal: reduce copy paper use by 20 percent, increase purchase of 100 percent recycled content
- Estimated to save annually*:
 - **7,400 trees**
 - **375 tons GHG**
 - **3.4 million gallons wastewater**
 - **100 tons solid waste**



*Source: [Paper Calculator](#)

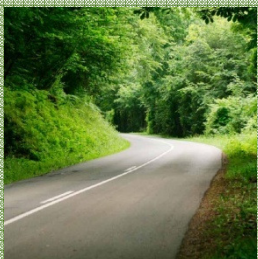


Energy-Efficient Lighting

Per Ordinance 16769 and Energy Plan

- Completed 2012 lighting plan
- Increasing lighting retrofits
- Purchasing more efficient fluorescent lamps with less mercury
 - Collaborating with State of Washington
 - Meeting 2012 federal requirements
- Buying LED's.





Electronics Recycling

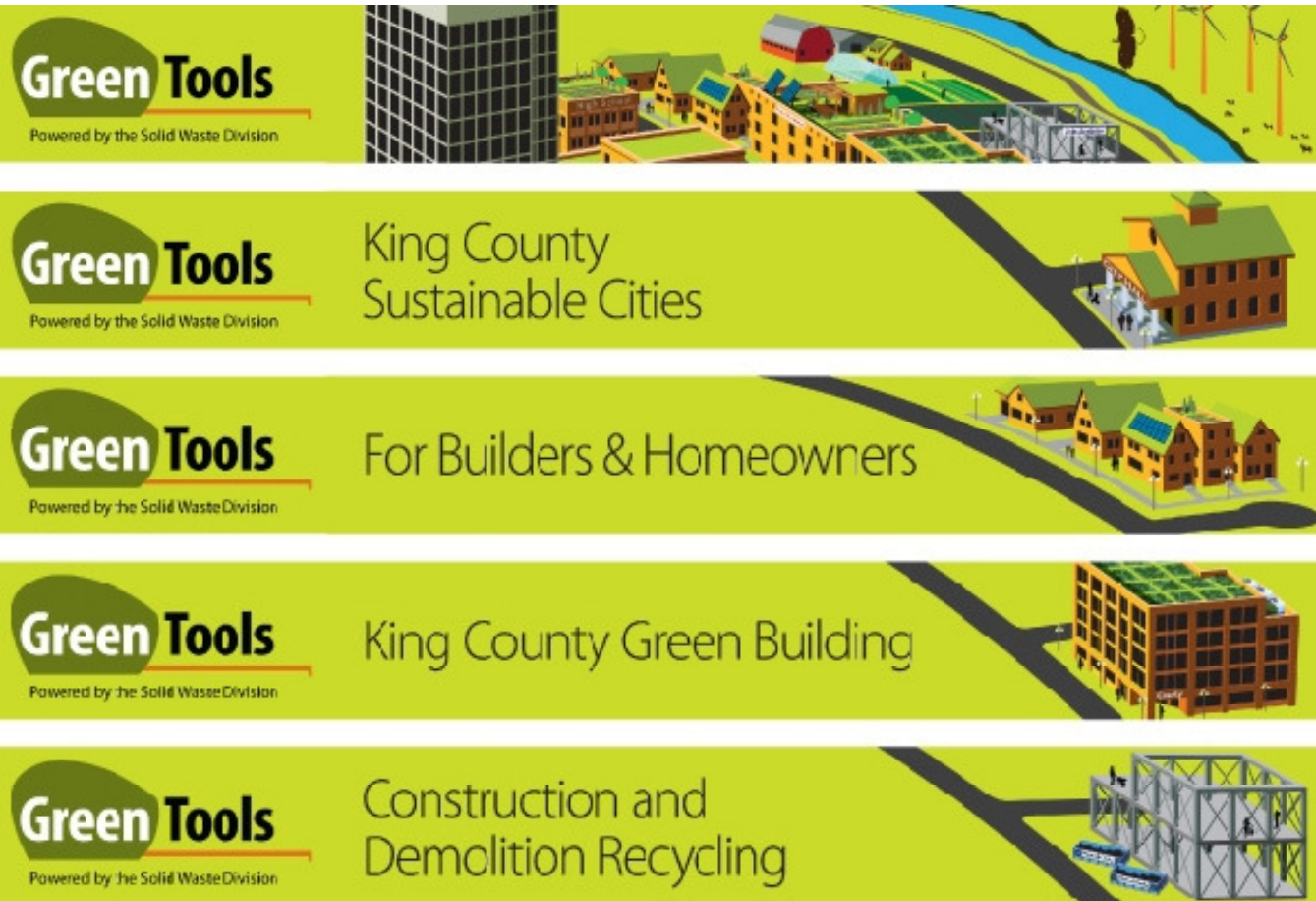
- Computers, monitors, TVs and cell phones are prohibited from disposal in King County
- County agencies are required to recycle with a contractor that is certified by e-Stewards, or equivalent
- Recycled 90,000 pounds of e-waste in 2010.



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King County GreenTools



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King County Green Building

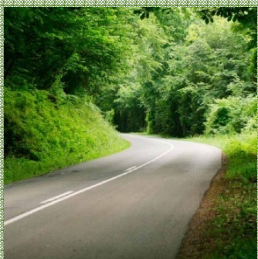
Green Building and Sustainable Development Ordinance

- Requires projects to be LEED Gold certified or apply the Sustainable Infrastructure Scorecard
- Eleven LEED and 135 Scorecard projects, saving 2,858 metric tons of GHG emissions and diverting more than 31,000 metric tons of construction and demolition materials from the landfill

Black River Building – More than \$120,000 in electricity cost savings, and LEED Silver

Bow Lake Recycling and Transfer Station – More than 40 percent of domestic water savings over conventional project





Green Building Tools

Toolkit 2

What is a Sustainable City?

Explore the Parts of a Sustainable City

- » City Government
- » County Government
- » Green Tools for Builders & Homeowners

- » Commercial & Mixed-Use Green Building
- » Green Infrastructure
- » Energy Infrastructure
- » Materials & Solid Waste Management
- » Integrated Water Systems

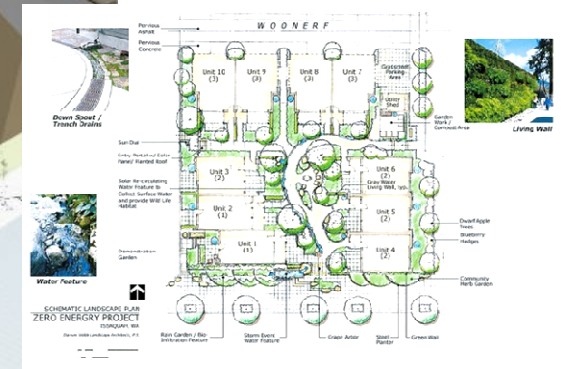
- » Economic Development
- » Transportation & Connectivity
- » Human Health
- » Schools & Education
- » Agriculture & Food Systems





Collaborative Partners:

-
- CONCEPTUAL SITE PLAN
- ISSAQUAH COUNTY REGION
- ALLEY
- PARKING GARAGE ACCESS
- COMMUNITY CENTER
- RECREATION AREA
- ADJACENT TOWNHOUSE DEVELOPMENT
- NE HIGH STREET
- COMMUNITY INNOVATION
- COMMUNITY INTEGRATION
- COMMUNITY REPLICATION
- COMMUNITY LONGEVITY
- SMITH





Transparency and Reporting

- For 2010, integrated reporting on Climate, Energy, Green Building, and Environmental Purchasing
- Transmitted to Council in June
- Ties reporting to goals and includes recommendations for further action
- Strategic Plan performance measurement framework includes Environmental Sustainability indicators for key objectives and strategies.

